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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,889	08/07/2001	Jorg Hofmann	MO-6495/LEA3	9240

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EXAMINER	
FEELY, MICHAEL J	

ART UNIT	PAPER NUMBER
1712	

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/890,889	HOFMANN ET AL.	
	Examiner	Art Unit	
	Michael J. Feely	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 August 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18 and 20-25* is/are rejected.

7)☒ Claim(s) *19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *0402*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Pending Claims

Claims 12-25 are pending.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 24 recites the limitation "a polyether polyol" in the process of claim 21. There is insufficient antecedent basis for this limitation in the claim. It appears that this claim should be dependent from claim 23.

Claim Rejections - 35 USC § 102/103

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

> patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language; or
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 24 is rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hofmann et al. (WO 99/46042: *see Abstract*) and Hofmann et al. (WO 99/19063: *see Abstract*).

8. Claim 24 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hofmann et al. (EP 0892002 A1: *see Abstract*) and Herold (US Pat. No. 3,829,505: *see Abstract)*.

9. Claim 24 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hofmann et al (US Pat. No. 5,998,327: *see Abstract*).

It should be noted that claim 24 is a product by process claim. It has been found that, "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

All of the above-cited references disclose a polyether polyol produced by polyaddition of an alkylene oxide onto a starter compound containing active hydrogen atoms in which the polyaddition of alkylene oxide is conducted in the presence of a double-metal cyanide catalyst. The double-metal cyanide catalysts used in the prior art are not the same as the one set forth in the instant invention; however, it appears that the final product of the prior art would have been the same or an obvious variant of the claimed invention due to the non-reactive nature of the catalyst. The polymer structure of the prior art would have been the same or an obvious variant of the claimed invention because the starting reactant materials used are the same as those used in the instant invention.

Therefore, if not explicitly taught in the references, then the instantly claimed polyether polyol would have been an obvious variation of the prior art to one of ordinary skill in the art at the time of the invention.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 23 and 24 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 28, 31, and 33 of copending Application No. 10/717,093. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Copending claims 28, 31, and 33 are dependent embodiments of claim 10, wherein claim 10 is drawn to a process of preparing a polyol comprising combining:

i) at least one starter compound having active hydrogen atoms;

ii) at least one oxide; in the presence of

iii) at least one DMC catalyst prepared by combining:

a) at least one metal salt,

b) at least one metal cyanide salt,

c) at least one organic complexing ligand, and

d) at least one functionalized polymer.

- Claims 28 further limits the claim to feature c) at least of organic complexing ligand chosen from a list of alcohols;
- Claim 31 further limits the claim to feature d) at least one functionalized polymer chosen from a list including bile acid or its salt, ester or amide; and
- Claim 33 further limits the claim to feature ii) at least one oxide chosen from a list of alkylene oxides.

One skilled in the art at the time of the invention would have been motivated to combine these limitations because they are all set forth in the set of copending claims. In light of this, this obvious combination is *fully encompassed* by instant claims 23 and 24. The following table details the corresponding claims:

Instant		12	13	14	15	16	17	18	19	20	21	22	23	24	25
Copending		--	--	--	--	--	--	--	--	--	--	--	28/31/33		

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. Claims 12-18 and 20-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of copending Application No. 10/133,287. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Claims 1-11 of the copending application are *fully encompassed* by instant claims 12-18 and 20-25. The following table details the corresponding claims:

Instant		12	13	14	15	16	17	18	19	20	21	22	23	24	25
Copending		1	2	3	4	5	6	6	--	7	8	9	10	11	1

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

13. Claims 12-18 and 21-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of copending Application No. 10/138,209. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Claims 1-10 of the copending application are *fully encompassed* by instant claims 12-18 and 21-25. The following table details the corresponding claims:

Instant		12	13	14	15	16	17	18	19	20	21	22	23	24	25
Copending		1	2	3	4	5	6	6	--	--	7	8	9	10	1

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

14. Claims 12-18 and 21-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10-15 and 19 of copending Application No. 10/129,579. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Claims 10-15 and 19 of the copending application are *fully encompassed* by instant claims 12-18 and 21-25. The following table details the corresponding claims:

Instant		12	13	14	15	16	17	18	19	20	21	22	23	24	25
Copending		10	11	12	13	13	14	14	--	--	15	15	19	19	19

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

15. Claims 12-18 and 25 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, 6, and 7 of U.S. Patent No. 6,696,383. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Patented claims 2-4, 6, and 7 are dependent embodiments of claim 1, wherein claim 1 is drawn to a double-metal cyanide catalyst prepared by combining:

i) at least one metal salt;

ii) at least one metal cyanide salt;

iii) at least one organic complexing ligand;

iv) at least one alkalki metal salt; and

v) optionally at least one functionalized polymer.

- Claim 2 further limits the claim to feature i) at least one metal salt chosen from a list including zinc salts;
- Claim 3 further limits the claim to feature ii) at least one metal cyanide salt chosen from a list including potassium, lithium, sodium, and cesium salts of hexacyanocobaltate (III);
- Claim 4 further limits the claim to feature iii) at least one organic complexing ligand chosen from a list of alcohols including tert-butanol; and
- Claims 6 and 7 further limit the claim to feature v) at least one functionalized polymer chosen from a list including bile acid or its salt, ester or amide.

One skilled in the art at the time of the invention would have been motivated to combine these limitations because they are all set forth in the set of patented claims. Furthermore, the combination of components i) and ii) would have inherently yielded a zinc hexacyanocobaltate

(III) double-metal cyanide compound. In light of this, this obvious combination is *fully encompassed* by instant claims 12-18 and 25. The following table details the corresponding claims:

Instant		12	13	14	15	16	17	18	19	20	21	22	23	24	25
Patented		2/3/4/6/7							--	--	--	--	--	--	2/3/4/6/7

16. Claims 12-18, 21, 22, and 25 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 5-7, 9, and 10 of U.S. Patent No. 6,797,665. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Claims 5, 6, and 7 of the patent are *fully encompassed* by instant claims 12, 14-18, and 25.

Claim 5 of the patent is partially encompassed by instant claim 13; however claim 5 does not explicitly disclose the presence of water and/or one or more water-soluble metal salts. Patent claim 9 is drawn to a process of forming a DMC catalyst similar to the one set forth in claim 5. Claim 9 features an aqueous medium. In light of this it would have been obvious to one of ordinary skill in the art at the time of the invention to include water in the DMC catalyst set forth in claim 5. This obvious combination is *fully encompassed* by instant claim 13.

Claims 9 and 10 of the patent are partially encompassed by instant claims 21 and 22; however, claims 9 and 10 do not explicitly disclose the presence of at least one bile acid or its salt, ester or amide. Patent claim 5 is drawn a DMC catalyst prepared by a process similar to the one set forth in claim 9. Claim 5 specifies that at least one functionalized polymer is chosen from a list that includes bile acid or its salt, ester or amide. In light of this it would have been

obvious to one of ordinary skill in the art at the time of the invention to include bile acid or its salt, ester or amide in the processes set forth in claims 9 and 10.

The following table details the corresponding claims:

Instant	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Patented	5	5/9	6	5	5	7	7	--	--	5/9	5/10	--	--	5

Allowable Subject Matter

17. Claims 1-18, 20-23, and 25 would be allowable if rewritten or amended to overcome the obvious-type double patenting rejection(s) set forth in this Office action; or with timely filed terminal disclaimer(s).

18. Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

19. The following is a statement of reasons for the indication of allowable subject matter: Hofmann et al. (WO 99/46042 & US equivalent 6,291,388) and Hofmann et al. (WO 99/19063 & US equivalent 6,323,375) are the closest prior art. They disclose similar DMC catalyst to that of instant claim 12; however, they provide no motivation to include at least one bile acid or its salt, ester or amide in combination with at least one double-metal cyanide compound and at least one non-bile organic complex ligand.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hofmann et al. (US Pat. No. 6,780,813) is also similar to the instant invention;

however, they are silent regarding the use of both a bile compound and a non-bile organic complex ligand.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Feely whose telephone number is 571-272-1086. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J. Feely
Patent Examiner
Art Unit 1712

November 24, 2004